REMARKS

Initially, Applicants would like to express their appreciation to the Examiner for the detailed Official Action provided. Upon entry of the above amendments, claims 1-3 have been amended and claims 4-9 have been added, with claims 1-9 remaining pending for consideration by the Examiner. Applicants respectfully request reconsideration of the outstanding rejections, and allowance of all the claims pending in another application.

Applicants note that the Examiner has not confirmed the acceptability of the filed drawings. Absent an indication to the contrary in the next official communication, Applicants believe the filed drawings to be acceptable.

Applicants thank the Examiner for indicating the consideration of the documents cited in the Information Disclosure Statement filed on July 8, 2005, as evidenced by the completed PTO-1449 Form that was returned with the Official Action.

Additionally, Applicants wish to thank the Examiner for acknowledging their claim for foreign priority under 35 U.S.C. § 119 as well as for confirming receipt of the certified copy of the foreign priority document upon which the above noted claim for priority is based.

In the above-noted Official Action, mailed April 18, 2008, claims 1 and 2 are rejected under 35 U.S.C. § 103(a) as being unpatentable over NANKAI et al. (U.S. Pat. No. 5,120,420) in view of IKETAKI et al. (U.S. Pat. No. 6,576,117), while claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over BEATY et al. (U.S. Pat. No. 6,645,368) in view of NANKAI and IKETAKI.

Applicants respectfully traverse the above rejections and submit that they are inappropriate with respect to the combination of limitations recited in Applicants' claims. Accordingly, Applicants

respectfully request reconsideration and withdrawal of each of the outstanding prior art rejections set forth in the Official Action, together with an indication of the allowability of all the claims pending herein, in due course.

Rejection of Claims 1-2 under 35 U.S.C. § 103(a)

Using claim 1 as a non-limiting example, the subject invention features a method for displaying manufacturing defects or computation errors of a biosensor and measuring the reaction results of a biological sample, thereby avoiding the generation of erroneously diagnosed reaction results (*see, for example,* Page 1, Paragraphs 0001, 0009 and 0011 of BAE). The calculated concentration value of the sample is displayed when the biosensor is determined to be functioning properly, otherwise, an error message is outputted to alert users (*see, for example,* Page 2, Paragraph 0017 of BAE).

In rejecting claim 1, the Examiner asserts that Column 5, Lines 46-53 of NANKAI discloses a measured current level that corresponds to a concentration of a glucose substrate, and Column 8, Lines 42-45 discloses averaging the read concentrations to obtain a mean value. The Examiner further relies upon IKETAKI as teaching features acknowledged to be absent in NANKAI; particularly, applying the voltage current to the electrode for multiple times sequentially. Figures 1 and 2 of IKETAKI are relied upon for analyzing and reporting parameters of the sensor without correction or as an off-value.

Applicants submit that NANKAI and IKETAKI fail to disclose all the limitations of claim 1. First, Applicants submit that neither NANKAI nor IKETAKI discloses "reading concentrations

corresponding to the amount of current from a memory and calculating an average value from the read concentrations," as defined in subject claim 1. The specification of the subject invention discloses that the memory in the subject invention includes "a table in which the concentrations corresponding to the voltage values detected from the working electrodes .... are mapped" (Page 4, Paragraph 45 of BAE). The NANKAI device, comprising an insulating base plate, at least an electrode, a counter electrode, a reaction layer, an electron acceptor, a space, an introducing port and a discharged port (*see* Column 3, Lines 5-15 of NANKAI), does not specifically disclose how a measured current level would "correspond[] to the concentration of glucose" (Column 5, Lines 46-53 of NANKAI). Likewise, IKETAKI calculates the concentration of the sample using a "statistical technical" involving parameters P1, P2, and/or P3, P4, rather than simply reading the corresponding concentration from a memory (*see* Column 3, Lines 13-16, 33-46; Figures 2-3 of IKETAKI).

Second, none of the cited references includes a self-checking feature to verify whether the biosensor is functioning properly, and accordingly, alarming users with an error message when an error occurs. Specifically, nowhere in NANKAI discloses a system that "check[s] whether the concentrations read from the memory are within a predetermined critical range to display at least one of an error message and the calculated average value," as recited in subject claim 1. Further, although IKETAKI compares its parameter values to "an expectation range," such process is not for error detecting but for substituting the parameter value with the boundary value of an expectation range for subsequent calculations to correct and optimize the concentration value (*see, for example,* Column 7, Lines 1-5; Column 12, Lines 53-60 of IKETAKI). Thus, IKETAKI likewise fails to disclose a system with an error checking or notification feature.

Finally, according to a feature of the invention defined by claim 1, current is individually applied to each working electrode to determine the reaction times and the amount of current flowing in each electrode, and thereof, to determine whether an error has occurred. In contrast, NANKAI only teaches the application of "a voltage of 1V between the electrodes" to obtain "an oxidizing current" (*see* Column 5, Lines 46-53 of NANKAI), and thus fails to disclose that the current in each electrode is applied and measured individually. Nor is this feature disclosed or suggested by IKETAKI.

Thus, Applicants submit that NANKAI and IKETAKI, in the combination suggested by the Examiner, fails to disclose each and every feature of the currently amended claim 1, i.e., reading the corresponding concentrations from "a memory," displaying "an error message" if the calculated concentrations are outside a predetermined range, and measuring the amount of flowing current in each working electrode individually. Accordingly, the Examiner is respectfully requested to withdraw the 35 U.S.C. §103(a) rejection of claims 1 and 2.

Rejection of Claim 3 under 35 U.S.C. § 103(a)

When rejecting independent subject claim 3, the Examiner asserts that it is obvious to one of ordinary skill in the art to apply the electrical analysis methods described by NANKAI and IKETAKI to the biosensor in BEATY. However, BEATY fails to disclose at least the non-inverting terminal of each operational amplifier ("op amp") is connected to a voltage source and the inverting terminal of each op amp is connected to a switch, as defined in subject claim 3. Nor is such feature disclosed in NANKAI and IKETKAI. Further, none of these three references teaches at least one of "a second

switch that selectively grounds the reference electrode of the biosensor," "a third switch that selectively grounds one of the two working electrodes of the biosensor," and "a display that displays at least one of reaction results of the sample and an error message." Thus, even if we attempt to combine BEATY, IKETAKI and NANKAI in the manner suggested by the Examiner, such combination nevertheless fails to result in the present invention. Accordingly, the Examiner is respectfully requested to withdraw the 35 U.S.C. §103(a) rejection of subject claim 3, and to indicate the allowability of the pending claims.

Additionally, Applicants submit new dependent claims 4-9 for the Examiner's consideration. Applicants submit that support for the newly submitted claims may be found at, for example, Paragraphs 0045, 0050, 0054, 0055 and 0059 of the originally filed specification. Accordingly, entry of the newly submitted claims is respectfully requested, along with an indication of their allowability.

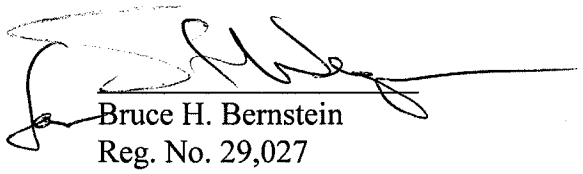
SUMMARY

Applicants have made a sincere effort to place the present application in condition for allowance and believe that they have done so. Applicants have amended the claims to enhance clarity and have distinguished the claimed invention from the applied art of record.

Any amendments to the claims which have been made in this amendment, and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Should the Examiner have any questions or comments regarding this Response, or the present application, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,
Byung-Woo BAE et al.



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